

Each participant is responsible for making his/her hotel reservation.

A block of rooms has been reserved for *Training Course* participants at:

500 Janes Avenue  
Bolingbrook, IL 60440  
(800) GO-ALOFT or (630) 410-6367

The rate is \$85.00 per night for a standard room. When making your reservation, inform the hotel that you will be attending the ANL/DOE ASME Training Course. The hotel reservation deadline is **March 5, 2012**.

Class will be held in  
Conference Room  
D-120 Bldg. 203



**Tracy Stanek**  
Bldg. 201, Rm. 2Q-06  
Argonne National Laboratory  
9700 South Cass Ave.  
Argonne IL 60439



**EM Environmental Management**  
 safety ❖ performance ❖ cleanup ❖ closure

**DOE Packaging Certification Program**  
 Office of Packaging and Transportation (EM-45)

# Training Course: Application of the ASME Code to Radioactive Material Transportation Packaging

March 27-29, 2012

Argonne National Laboratory  
Argonne, Illinois

Announcement also available at:  
<http://www.dis.anl.gov/conferences/asme/info.html>



Argonne National Laboratory is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC.

## Description

The goal of the course is to provide guidance for the application of the ASME Boiler & Pressure Vessel (B&PV) Code to packaging for the transportation of high-level radioactive materials or fissile materials. The course objective is to facilitate the design, fabrication, examination, and testing of a packaging that meets all the applicable ASME Code requirements and all the governing federal requirements and regulations.

The course will provide insight on the DOE/NRC packaging certification process. Examples will be drawn from real-world applications.

The target audience is DOE and contractors, other agency personnel, and commercial packaging engineering employees. Those responsible for designing, fabricating, or evaluating Type B or fissile material packaging, as well as preparing or reviewing the associated safety analysis reports, will also benefit.

## Staff

<i>Yung Liu</i>	SARP Review Group Manager
<i>Vik N. Shah</i>	Training Course Co-Director
<i>Zenghu Han</i>	Training Course Co-Director
<i>Sharon Ryan</i>	Training Course Administrator
<i>Bud Fabian</i>	Quality Assurance Engineer
<i>Jie Li</i>	Chemical Engineer
<i>Ron Pope</i>	Mechanical Engineer
<i>Brent Shelton</i>	Mechanical Engineer
<i>Shiu-Wing Tam</i>	Materials Engineer
<i>William Toter</i>	Welding Engineer

## Guest Lecturers

*Savannah River National Laboratory*  
*Lawrence Gelder* Technical Advisor

*Nuclear Regulatory Commission*  
*Gordon Bjorkman* Senior Technical Advisor  
*Kim Hardin* Senior Project Manager  
Spent Fuel Storage and  
Transportation Division

## Agenda

8:00 a.m. – 5:00 p.m.

This is a classroom course, last given in March 2011 for the 12th time. It consists of technical presentations, discussions, examples, and problem solving with emphasis on understanding the regulatory basis, current design practice, and engineering rationale for applying the ASME Code to packaging for transportation of radioactive materials. Course highlights include lectures on the following:

- Overview of federal regulations that govern transportation packaging for radioactive materials
- Overview of DOE and NRC guidance documents, including regulatory guides
- General background and structure of the Code, with emphasis on the NUPACK Code (Section III, Division 3), including discussion of Section III, Division 1 and Section VIII, Division 1
- Current activities in the NUPACK Code, including strain-based criteria
- Code and non-code structural materials, containment loading and design with emphasis on design-by-analysis rules, significance of stress limits, bolt stress analysis, behavior of bolted closure, thermal stress analysis, design for hypothetical accident conditions, and brittle fracture protection
- Design of containment internal support structures, buckling analysis, including Code Case N-284
- Fabrication, weld examination and test requirements, and quality assurance
- Design qualification by physical testing, containment requirements for leakage rates
- Solution of problems to illustrate the Code application

## Course Material

All participants will receive a copy of the course instruction visuals, which are based on the ASME B&PV Code; selected key references; as well as a Certificate of Completion for the ASME Code Training Course. (Note: Participants are required to stay for the entire course in order to receive the Certificate of Completion.)

## Registration

Application of the ASME Code to  
Radioactive Material Packaging

March 27-29, 2012

Argonne National Laboratory  
9700 South Cass Ave.  
Argonne, IL 60439

The registration fee for this course is \$800 (\$700 if registered before **March 1, 2012**). Checks should be made payable to Argonne National Laboratory (credit cards accepted). The number of participants is limited to 24. Registration must be received by **March 12, 2012**. The participant list is subject to approval by DOE.

To register on-line, please visit  
<http://www.dis.anl.gov/conferences/asme/info.html>

For check payment only, please send to:

Tracey Stancik  
Argonne National Laboratory  
9700 South Cass Ave.  
Bldg. 201, Rm. 2Q-06  
Argonne IL 60439  
**Phone: (630) 252-5587**  
E-mail: [tstancik@anl.gov](mailto:tstancik@anl.gov)

**Cancellation policy:** A processing fee of \$100 will be charged for cancellation until/on March 12, 2012. No refund will be issued after March 12, 2012.